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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,226	01/16/2004	Masao Kano	2018-830	5742
23117	7590	06/27/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			GARBER, CHARLES D	
			ART UNIT	PAPER NUMBER
			2856	
DATE MAILED: 06/27/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,226

Applicant(s)

KANO ET AL.

Examiner

Charles D. Garber

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01/16/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Okuma (Japanese Patent Application Publication 2000-205056).

Regarding claim 1, Okuma discloses a leak diagnostic device comprising: an evaporated fuel purge system (see drawings 1 and 5) including a fuel tank 5, an adsorption filter 8 which connects to the fuel tank through a connecting pipe 6 and has a venting flow path (9, 12, 13, 14, 15, 16, 17 or 10, 11, 3), and a vent valve 13 connected to an intake system 3 of an engine 1 through a valve flow path (10, 11, 3); a pump 13 which pressurizes the venting flow path (abstract) to inspect state of leakage in the evaporated fuel purge system (abstract); a motor unit (inherent in an electric air pump) which drives the pump for applying or reducing pressure. While Okuma does not expressly recite there is an in-vehicle battery for the motor unit Examiner considers such a battery is inherent for two reasons. First, Examiner knows of no automobiles on sale in this country (or Japan where the Okuma reference originates) that does not have a battery that supplies power to the electrical devices of the automobile. Second, Applicant's specification admits that the Okuma reference specifically (page 3) includes a battery. Okuma finally discloses voltage controlled at two different levels; big driver voltage V2, for example 12 Volts

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(see paragraph 0041) and usual driver voltage V1, for example 5 Volts (see paragraph 0036). Examiner considers V1 and V2 are inherently supplied from the in-vehicle battery to the motor at a predetermined voltage.

As for claim 2, passage 15 with orifice 16 is a reference channel placed in parallel with the venting flow path. Valve 14 is switchover valve for switching flow paths which is capable of connecting the reference channel to the pump in place of the venting flow path, wherein pressure increased by the pump is alternately applied to the reference channel and the venting flow path through the switchover valve as shown in drawings 5, 6 and 7.

As for claim 3, Okuma discloses comparing electric current of the motor unit when pressure is applied to the reference channel and to the venting flow path to determine leakage (abstract).

As for claim 4, Okuma's 5 Volts is less than 84 % of a nominal voltage of the 12 Volt battery.

As for claim 5 Okuma's 5 Volts is less than 10V, where the voltage of the battery is 12V.

As for claim 7, Examiner considers the voltage control circuit to be C/U item 20 in the Okuma reference. Examiner considers it is inherently between the battery and an input stage of the motor unit.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okuma (Japanese Patent Application Publication 2000-205056).

Okuma discloses the claimed invention except for supplying the predetermined voltage of less than 20V, when a nominal voltage of the battery is 24V. It would have been obvious to one having ordinary skill in the art at the time the invention was made supply the predetermined voltage of less than 20V, when a nominal voltage of the battery is 24V, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okuma (Japanese Patent Application Publication 2000-205056) in view of Dalton (US Patent 4,817,870).

Okuma discloses the claimed invention except for the voltage control circuit comprises a Zener diode and a semiconductor device.

Dalton teaches a "constant source voltage" maybe "developed by a voltage-regulating zener diode [a semiconductor] circuit 87 [a semiconductor device] fed from the [vehicle] battery 85"

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a zenor diode in a semiconductor circuit to control voltage as zenor diodes are effective for holding voltage supplied by a battery constant and a constant voltage will allow for a more accurate leakage determination.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okuma (Japanese Patent Application Publication 2000-205056) in view of Dawson et al. (US Patent 5,635,630).

Okuma does not expressly teach the pump, the motor unit, and the switchover valve for switching flow paths are integrally assembled into a module.

Dawson teaches a similar "valve is integrally associated with said pump" (claim 16.

While Dawson does not expressly provide a reason for integrating these components it would nevertheless have been obvious to one having ordinary skill in the art at the time the invention was made to do so, since it has been held that forming in one piece an article which has formally been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

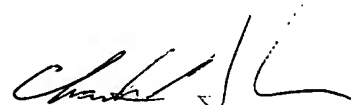
Okuma (US Patent 6,161,423) teaches supplying a leak test pump with constant voltage (column 5 lines 33-36).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Garber whose telephone number is (571) 272-2194. The examiner can normally be reached on 6:30 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdg



**CHARLES GARBER
PRIMARY EXAMINER**